

Amended Claim

As noted above, the primary difference over D1 is due to the nature of the processor hardware itself. HP use a traditional VLIW organization with shared register files between multiple execution units, whereas CriticalBlue uses direct connectivity between execution units to allow greater customization of connectivity. Amended Claim 1 brings out this distinction. The modified part of the claim is underlined below:

1. A method of automatic configuration of a microprocessor architecture whereby:

- (a) the architecture includes a configurable number of execution units;
- (b) the architecture has configurable connectivity between those execution units;
- (c) the execution units are able to communicate data directly without the need to be connected between register files that are shared between multiple execution units;
- (d) the data and control flows within a particular input program are used to influence decisions regarding execution unit replication and connectivity.

Support is seen in Figure 2 and the accompanying text (page 7, 3rd para.):

“An example functional unit array is shown in Figure 2. Given physical connectivity limitations of the functional unit array, not every unit is connected to every other. Thus in some circumstances a data item may be generated by one unit and needs to be transported to another unit with which there is no direct connection. The placement of the units and the connections between them is specifically designed to minimise the number of occasions on which this occurs. The interconnection network is optimised for the data flow that is characteristic of the required application code. A register file unit 201 is placed centrally. Other functional units 202 are placed around the register file as required by the application software code.”

In the light of the above arguments, re-consideration of the present application is requested. Should the examiner require further clarification a further Written Opinion is requested.

Yours faithfully,

Peter Langley